

ABSTRACT

A wireless communication system and method are provided, where a base station communication device includes a carrier wave-based transmitter and an ultrawideband receiver. A mobile communication device includes a carrier wave-based receiver and an ultrawideband transmitter. Carrier wave communications are carried out in a forward channel from the base station communication device to the mobile communication device, and ultrawideband communications are carried out in a reverse channel from the mobile communication device to the base station communication device. As a result, the power requirements of the mobile communication device are significantly reduced.